To the Chairman and Members of the
Wortley Rural District Council.

Gentlemen,

I beg to submit my Annual Report for 1909.

The health of the district during the year was exceptionally good. The general death-rate was 2.4 per 1000 below the average of the previous ten years, and the zymotic death-rate was also low. The most marked feature of the year's statistics, however, is the great decrease in the infantile mortality, which has fallen from an average for the previous decade of 132 to 96 per 1000 births. This great saving in infant life must be ascribed in large measure, though not entirely, to the favourable meteorological conditions which prevailed throughout the year. The birth-rate was the lowest yet recorded in the district.

The birth-rates and death-rates for the district and for England and Wales are:—

| | England and Wales. | Wortley District. | |
|---|---|---|---|
| | 1909. | 1909. | Average ten years 1899-1908 |
| Birth-rate per 1000 of the population | 25.6 | 28.1 | 32.3 |
| Death-rate ,, ,, | 14.5 | 13.1 | 15.5 |
| Zymotic Death-rate per 1000 ,, | 1.12 | 1.2 | 2.0 |
| Infantile Mortality per 1000 births | 109 | 96 | 132 |

Considering that the bulk of the population is engaged in mining and manufacturing industries these figures are distinctly satisfactory, and may be taken to indicate a progressive improvement in the sanitary condition of the district.

I am,
Your obedient servant,
February 25th, 1910. ALEXANDER ANDERSON.

# Report for the Year 1909.

## 1.—VITAL STATISTICS.

**Population.** — The population of the district, estimated to the middle of 1909, was 32,378. The increase in population during the year is thus estimated to be 333, while the natural increase (i.e., the excess of births over deaths) was 461. During the eight years, 1902-1909, the natural increase of the population has been 3,948, while the increase estimated according to the Registrar-General's method is only 2,713. Allowance must be made, in considering the birth and death rates, for some inaccuracy in the estimate of the population on which these rates are based, and this error is greater towards the end of the inter-censal period. Judging from the number of new houses erected in the different sub-divisions of the district, I think the population is probably under-estimated in Ecclesfield, and slightly over-estimated in Bradfield and Tankersley.

The distribution of the population in the various sub-districts is shown in the following table:—

### TABLE A.

Acreage, Population, and Inhabited Houses, 1891 and 1901.

| | | | | | | POPULATION. | | |
|---|---|---|---|---|---|---|---|---|
| | | Inhabited Houses. | | Persons per house. | | Census. | | Estimated to |
| Sub-District. | Acreage. | 1891. | 1901. | 1891. | 1901. | 1891. | 1901. | middle 1909 |
| Ecclesfield | 9,368 | 2,892 | 3,420 | 5.1 | 4.9 | 16,665 | 18,324 | 19,816 |
| Bradfield . | 34,780 | 1.331 | 1,465 | 5.0 | 5.1 | 6,728 | 7,916 | 9.052 |
| Tankersley | 2,465 | 357 | 428 | 6.2 | 5.6 | 2,216 | 2,423 | 2,608 |
| Wortley . . . | 5,617 | 211 | 200 | 5.3 | 5.0 | 1,138 | 1,002 | 902 |
| Whole District . . | 52,230 | 4,791 | 5,513 | 5.2 | 5.0 | 26,747 | 29,665 | 32,378 |

The **Births** registered in the district numbered 864, equal to a birth-rate of 28.1 per 1000 of the population. This is the lowest birth-rate yet recorded in the district.

The birth-rate for the whole of England and Wales in 1909 was 25.6, and is the lowest ever recorded.

The male births numbered 423, and the female births 441. This proportion is most unusual, the male births, as a rule, being in excess of the female.

There were 31 illegitimate births, equal to a rate of 36 per 1000 births.

The birth-rate in Ecclesfield sub-district was 33.2, in Bradfield 19.1, in Tankersley 24.2, and in Wortley 21.6. The rate in Bradfield is exceptionally low, 45 fewer children having been registered in that district than the average for the previous seven years. It is difficult to account for this low birth-rate, though no doubt trade depression in some of the local industries has had considerable effect.

**Deaths.**—The total number of deaths registered in the district during the year was 577. Of these, 189 were those of non-residents, 187 occurring in the South Yorkshire Asylum, and 2 in Grenoside Workhouse, while 15 deaths of persons previously resident in the district took place in the following Sheffield institutions:—Royal Infirmary 13, Royal Hospital 2. Deducting the former and adding the latter, we obtain the number of deaths which properly belong to the district.

The **Nett Deaths,** therefore, were 403, equal to a death-rate of 13.1 per 1000 of the population.

The average rate for the previous ten years was 15.5.

The death-rate in England and Wales during 1909 was 14.5, which is the lowest ever recorded.

The death-rates in the sub-districts were: Ecclesfield 14.9, Bradfield 9.9, Tankersley 10.7, Wortley 12.2.

There were 7 uncertified deaths, and inquests were held in 30 instances.

The general death-rate for the year is thus considerably lower than the average of the previous ten years, and is 1.4 lower than the rate for the whole of England and Wales.

As compared with 1908, there has been a marked decrease in the mortality from Scarlet Fever, Diarrhœa, Bronchitis, Diseases of the Heart and Nervous System, while the deaths from Measles and Cancer have increased in number.

**Age Mortality.** — The deaths at selected age periods and the death-rate per 1000 of the population living at the various ages are shown in the following table:—

## TABLE B.

| Age. | Population estimated to middle 1909. | Deaths. | Death Rate per 1000 |
|---|---|---|---|
| Under 1 year | 859 | 83 | 96.6 |
| 1 ,, 5 years | 3,273 | 41 | 12.5 |
| 5 ,, 15 ,, | 6,991 | 22 | 3·1 |
| 15 ,, 25 ,, | 6,066 | 19 | 3·1 |
| 25 ,, 65 ,, | 13,841 | 131 | 9·4 |
| 65 and over | 1,348 | 107 | 79·4 |

As compared with the previous year, the death-rate has decreased at all age periods except at ages 5-15 years. The decrease is most marked amongst the very young and the very old.

**Infantile Mortality.**—The deaths amongst infants under one year of age numbered 83, equal to an infantile mortality of 96 per 1000 births, which is by far the lowest yet recorded in the district.

The average rate for the previous ten years was 132.

The infantile mortality for England and Wales during 1909 was 109, which is the lowest ever recorded.

The rates for the sub-districts were: Ecclesfield 99; Bradfield 89; Tankersley 79; Wortley 105. These rates are very different from those recorded in 1908, and show how necessary it is to exercise caution in drawing inferences from the figures for one year if the populations dealt with are small. The following table gives the infantile mortality obtaining in the sub-districts each year since 1902.

### Infantile Mortality per 1000 Births.

| Year. | Ecclesfield. | Bradfield. | Tankersley | Wortley. | Whole District |
|---|---|---|---|---|---|
| 1902 | 115 | 144 | 132 | 80 | 122 |
| 1903 | 133 | 137 | 73 | 77 | 127 |
| 1904 | 137 | 84 | 105 | 80 | 122 |
| 1905 | 113 | 163 | 88 | 107 | 123 |
| 1906 | 110 | 121 | 106 | 100 | 112 |
| 1907 | 131 | 158 | 129 | 45 | 135 |
| 1908 | 110 | 145 | 205 | nil. | 122 |
| Average for years 1902-1908 | 121 | 136 | 119 | 69 | 123 |
| 1909 | 99 | 89 | 79 | 105 | 96 |

The average rate for Chapeltown Special Sanitary District (exclusive of that portion situated in Tankersley Parish) for the years 1902-1908, was 132, and for the rest of Ecclesfield, 112. The corresponding figures for 1909 were 87 and 109.

In Table V. the various causes of infantile mortality are detailed, month by month. The following is a summary of this table for each of the years 1905-1909:—

INFANTILE DEATHS PER 1000 BIRTHS.

| | 1905 | 1906 | 1907 | 1908 | 1909 |
|---|---|---|---|---|---|
| Common Infectious Diseases | 3 | 3 | 16 | 8 | 7 |
| Diarrhœal Diseases | 15 | 35 | 15 | 18 | 10 |
| Premature Births | 25 | 11 | 18 | 19 | 14 |
| Other Wasting Diseases | 22 | 22 | 17 | 19 | 17 |
| Tuberculous Diseases | 3 | 2 | 4 | 9 | 4 |
| Convulsions | 11 | 11 | 17 | 12 | 16 |
| Pneumonia and Bronchitis | 34 | 19 | 37 | 34 | 15 |
| Other Causes | 7 | 7 | 9 | 3 | 13 |

Consideration of this table shows that the reduction in the infantile death rate has been due mainly to decreased mortality from Diarrhœal Diseases, and from Pneumonia and Bronchitis. It is noticeable that in previous years when the mortality from Diarrhœal Diseases has been high, the mortality from Pneumonia and Bronchitis has been low and vice versa. During 1909, both these rates were low, and it is especially to this favourable conjunction of circumstances that so many infant lives have been saved.

It is difficult to account for the sudden fall in the infantile death rate, except on the theory that the meteorological conditions were, during the year, especially favourable to infant life. At the same time, one cannot entirely ignore the effect of those indirect educative measures that have been exerted, locally and generally, during the last few years. Individual influence, however, cannot be said to have had much effect, because there has been no systematic visiting with this special end in view, except in Ecclesfield village. In Ecclesfield the District Nurses attached to the private Home have, since March, received weekly lists of births, and have visited practically every house in which a birth has occurred. Their visits have been very favourably received, and, I cannot doubt, have been productive of much good.

From the information obtained by them, it would appear that about 76 per cent. of infants are entirely breast fed, and 10 per cent. partly breast and partly bottle fed. Amongst the bottle fed babies, a few instances were noted where the old fashioned and insanitary tube bottles were in use and unsuitable foods, other than milk, were added to the infant's diet. A little timely advice ought to be sufficient to correct these faulty methods of infant feeding in the future.

In my report for 1908, I explained the disadvantages attaching to the method of obtaining information as to the occurrence of births from the Registrar's list, delay in registration being the most important. This defect was illustrated in Ecclesfield during the year, three deaths having occurred before the registration notice was received by the nurses. It is difficult, however, to see how this can be obviated at present. The adoption of the Notification of Births Act would, no doubt, meet the difficulty, but this Act, if adopted, would apply to the whole area within the jurisdiction of the Sanitary Authority, and it could not be efficiently worked without the assistance of many other nurses or health visitors stationed in the various localities. Very little progress has been made in this direction during the year. In Tankersley and in Wortley, however, district nurses have been appointed under private auspices, and I hope this good example will be followed in other more populous localities.

The distribution, by the District Registrars, of printed leaflets, prepared by me and giving instructions in the care and feeding of infants, has been continued.

**Tuberculous Diseases.** — Pulmonary Tuberculosis caused 20 deaths, and other forms of Tuberculous Disease 12 deaths, the combined rate being 1.04 per 1,000 of the population.

The death rate from Pulmonary Tuberculosis alone was 0.65 for the whole district and for the sub-districts—Ecclesfield, 0.75; Bradfield, 0.57; Tankersley, 0.38; Wortley, nil.

The deaths and death rates from Pulmonary Tuberculosis in previous years are as follows:—

| Year. | 1899 | 1900 | 1901 | 1902 | 1903 | 1904 | 1905 | 1906 | 1907 | 1908 |
|---|---|---|---|---|---|---|---|---|---|---|
| Deaths ... | 38 | 35 | 41 | 20 | 33 | 31 | 24 | 21 | 26 | 16 |
| Death rate per 1,000 | 0.88 | 0.79 | 0.97 | 0.70 | 1.14 | 1.07 | 0.82 | 0.70 | 0.86 | 0.52 |

The death rate from Pulmonary Tuberculosis was slightly higher than that recorded in 1908, which was the lowest on record.

During the year, 6 notifications were received under the Tuberculosis (Regulations) Order, 4 of these having been notified by Medical Officers of the Union, and 2 by the responsible officers of other Unions. These latter referred to consumptive persons who had removed into the district from other Unions. In addition to these, 12 voluntary notifications were received. It is somewhat surprising that so few notifications were received under the Tuberculosis Order, which refers only to persons who come under the care of poor law officers, either at home or in the Workhouse. As 20 deaths from Pulmonary Tuberculosis occurred in the district during the year, there must have been at least 60 persons suffering from this disease. The proportion of these coming under the notice of poor law medical officers is small. Reliable inferences cannot, of course, be drawn from these figures, but, so far as they go, they seem to show that consumptive persons in receipt of relief form a small proportion of the total number existing in the district. As regards voluntary notification, I have no doubt more cases would be notified if something tangible were offered in the shape of sanatorium treatment, both for assisting in the recovery of the patient and for the protection of the other members of the family in the later stages of his illness. This should be borne in mind in any future extension of the hospital accommodation in the district.

All the cases notified were visited by me, and instructions given where necessary. One matter of considerable importance, both from the point of view of the patient and of the Medical Officer of Health, I should like to draw attention to, namely, the necessity on the part of the medical attendant of informing the patient of the nature of his illness. In a few cases I found the patient was not aware that he was suffering from "consumption of the lungs." In no disease is it more essential than in Phthisis that the patient should be acquainted at the earliest possible date with the nature of his complaint. In the words of the Medical Officer of the Local Government Board, "this is indispensable, if the active co-operation of the patient in regard to precautions is to be secured. It is equally necessary for the patient's own welfare, which depends in large measure on his intelligent carrying out of instructions. As the vast majority of cases of Pulmonary Tuberculosis recover when recognised early, and as life in more advanced cases can be prolonged by efficient treatment, there need be no hesitation in following this course."

Izal disinfectant was provided for use in the homes of the patients, and in a few cases bedding, etc., was removed to the steam disinfector. In other cases the bedding was destroyed by the friends after the death of the patient.

**Respiratory Diseases.**—78 deaths were caused by diseases of the respiratory system, equal to a death-rate of 2·5 per 1000, as compared with 3.3 in 1908.

One death occurred from ganister's disease of the lungs.

**Malignant Diseases** caused 32 deaths, of which 31 were ascribed to cancer.

**Influenza** caused 2 deaths.

**Zymotic Diseases,** which include the seven principal epidemic diseases, caused 38 deaths, equal to a rate of 1·2 per 1,000, as compared with an average of 2.0 for the previous ten years.

The rates in the sub-districts were—Ecclesfield, 1.67; Bradfield, 0.57; Tankersley, 0.76; Wortley, nil. The high zymotic rate in Ecclesfield was caused by the prevalence of Measles, which was responsible for 17 deaths.

### TABLE C.

Zymotic Diseases—Death rates per 1,000 of the population for the year 1909 and average rates for previous ten years.

| Disease | 1899-1908 | 1909 |
|---|---|---|
| Scarlet Fever | 0.20 | nil. |
| Diphtheria | 0.57 | 0.09 |
| Measles | 0.25 | 0.61 |
| Whooping Cough | 0.25 | 0.16 |
| Typhoid Fever | 0.14 | 0.19 |
| Diarrhœa | 0.59 | 0.16 |
| Total | 2.0 | 1.2 |

In England and Wales the zymotic death rate for 1909 was 1.12.

## II.—PREVALENCE AND FATALITY OF INFECTIOUS DISEASES.

### 1.—Notifiable Diseases.

During the year 155 cases of infectious diseases were notified, equal to an attack rate of 5.04 per 1,000 of the population, as compared with an average rate of 10.1 during the previous ten years.

The attack rates in the sub-districts were—Ecclesfield, 6.2; Bradfield, 2.8; Tankersley, 4.6; Wortley, 2.2

TABLE D.

Notifiable Diseases.—Attack rates per 1,000 of the population for the year 1909 and average rates for previous ten years.

| Disease. | 1899-1908. | 1909. |
|---|---|---|
| Scarlet Fever | 6.5 | 2.5 |
| Diphtheria | 2.3 | 0.78 |
| Typhoid Fever | 0.70 | 1.06 |
| Erysipelas | 0.53 | 0.70 |
| Puerperal Fever | 0.06 | nil. |
| Small Pox | 0.01 | nil. |
| Total | 10.1 | 5.04 |

The above table shows that there has been a considerable decrease in the prevalence of Scarlet Fever, Diphtheria and Puerperal Fever, and a slight increase in Typhoid Fever and Erysipelas.

**Scarlet Fever.**—Cases notified and deaths in previous years.

| Year | 1899 | 1900 | 1901 | 1902 | 1903 | 1904 | 1905 | 1906 | 1907 | 1908 | 1909 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cases | 267 | 379 | 163 | 74 | 139 | 96 | 242 | 359 | 351 | 106 | 79 |
| Deaths | 9 | 13 | 1 | 1 | 2 | 4 | 9 | 13 | 9 | 7 | 0 |
| Fatality per cent | 3.3 | 3.2 | 0.6 | 1.3 | 1.4 | 4.1 | 3.7 | 3.6 | 2.5 | 6.6 | nil |
| Percentage Removals to Hospital | 55 | 49 | 63 | 78 | 74 | 92 | 79 | 59 | 56 | 85 | 77 |

The number of cases of Scarlet Fever is fewer than in any year of the decade except 1902, only 79 cases having been notified, as compared with an average of 219 for the previous ten years.

In **Ecclesfield** Sub-district, 55 cases were notified, equal to an attack rate of 2.9 per 1,000. Of these 45 were removed to hospital.

As in the previous year, the localities chiefly affected were Chapeltown and Wadsley Bridge.

At Chapeltown, 17 cases occurred, which were fairly evenly distributed throughout the year. At Warren there were 4 cases, and the same number at Burncross.

At Highgreen there were 8 cases, and at Ecclesfield, 5 cases.

At Grenoside 2 cases occurred, and one each at Wisewood and Middlewood.

At Wadsley Bridge 13 cases occurred.

In **Bradfield** Sub-district 13 cases occurred, equal to an attack rate of 1.5 per 1,000. 11 cases were removed to hospital.

Five cases occurred at Ughill, 1 at Hollow Meadows, 2 at Stannington, 1 at Storrs, 1 at Holdworth, 2 at Loxley, and 1 at Oughtibridge.

In **Tankersley** there were 10 cases, equal to an attack rate of 3.8 per 1,000. Of these, 4 occurred at Pilley Yard, 3 at Rockingham Row, and 3 in other parts of the parish.

In **Wortley** only one case occurred at Hermit Hill.

### TABLE E.

Monthly Notifications of Scarlet Fever.

| Sub-districts. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ecclesfield | 7 | 3 | 4 | 5 | 1 | 2 | 5 | 3 | 7 | 6 | 5 | 7 | 55 |
| Bradfield | 1 | 1 | 5 | 1 | — | — | 1 | 1 | — | — | 2 | 1 | 13 |
| Tankersley | 1 | 2 | — | 1 | — | — | — | — | — | 3 | 1 | 2 | 10 |
| Wortley | — | — | — | — | — | — | — | 1 | — | — | — | — | 1 |
| Whole District | 9 | 6 | 9 | 7 | 1 | 2 | 6 | 5 | 7 | 9 | 8 | 10 | 79 |

**Diphtheria and Membranous Croup.**—Cases notified and deaths in previous years.

| Year | 1899 | 1900 | 1901 | 1902 | 1903 | 1904 | 1905 | 1906 | 1907 | 1908 | 1909 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cases | 89 | 243 | 120 | 27 | 13 | 33 | 23 | 54 | 127 | 34 | 24 |
| Deaths | 23 | 86 | 29 | 6 | 5 | 5 | 4 | 9 | 14 | 7 | 3 |
| Fatality per cent | 25.8 | 35.3 | 24.1 | 22.2 | 38.4 | 15.1 | 17.4 | 16.6 | 11.0 | 20.6 | 12.5 |

During the year 24 cases of Diphtheria were notified, equal to an attack rate of 0.78 per 1,000, as compared with an average of 2.3 for the previous ten years. 11 cases were removed to hospital.

Nineteen cases occurred in Ecclesfield Sub-district, 5 being at Chapeltown, 1 at Warren, 1 at Burncross, 7 at Highgreen, 3 at Ecclesfield, and 2 at Wadsley Bridge.

In Bradfield Sub-district, 1 case occurred at Hollow Meadows, 1 at Thornsett, and 1 at Wharncliffe Side.

In Tankersley there was 1 case.

During the year 69 swabs for bacteriological examination were taken by me from the throat or nose of patients suffering or suspected to be suffering from Diphtheria, or of persons who had been in contact with them. Clinical signs alone cannot be relied on in determining whether a patient is free from infection, and it is desirable, as a rule, that confirmatory evidence of a bacteriological nature should be obtained. This is always obtained in cases treated in hospital before their discharge, and, so far as possible, in home cases and home contacts before they are allowed to resume attendance at school. In some cases the bacilli linger in the throat for a long time. In one case treated in hospital during the year they did not disappear for 12 weeks, and in another case they were still present at the end of the seventh week of illness. In searching for infective contacts, especially school contacts, however, clinical signs are invaluable in the rapid examination and exclusion of doubtful cases. The contacts that do most harm are those who have actually suffered from an unrecognised attack, but who have never received medical advice. These are just the cases that can often be readily detected by clinical methods. The contact who, though harbouring the bacilli, has never shown any clinical signs of disease, is much less dangerous and can only be detected by laborious swabbing of all the children in school. This is not often necessary. On the other hand, the results obtained by bacteriological examination are not infallible. In one case, for example, where I sent a child home from school with a very suspicious throat and a swab was subsequently examined, the result was negative. I would not, however, allow him to return to school, and soon afterwards his brother suffered from a mild attack of diphtheria. Swabs taken during the latter's convalescence gave a positive result in his case, but still a negative result in the case of the presumably infecting brother. At the same school another contact was detected and excluded, bacteriological examination in this instance confirming the clinical diagnosis. After the exclusion of these contacts the threatened outbreak ceased.

**Typhoid Fever.**—Cases notified and deaths in previous years.

| Years | 1899 | 1900 | 1901 | 1902 | 1903 | 1904 | 1905 | 1906 | 1907 | 1908 | 1909 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cases | 37 | 25 | 36 | 14 | 28 | 22 | 16 | 33 | 9 | 15 | 31 |
| Deaths | 5 | 8 | 7 | 1 | 4 | 8 | 2 | 6 | 3 | 3 | 6 |
| Fatality per cent | 13.5 | 32.0 | 19.4 | 7.1 | 14.3 | 36.3 | 12.5 | 18.2 | 33.3 | 20.0 | 19.3 |

During the year 31 cases of Typhoid Fever were notified, and 6 deaths occurred, the fatality rate being 19.3 per cent. 23 cases were removed to hospital. 28 cases occurred in Ecclesfield Sub-district, 17 of which were at Highgreen and Potter Hill, 6 at Cinder Hill (in one family), 2 at Grenoside, 2 at Ecclesfield, and 1 at Hesley Lane.

Three cases occurred in Bradfield Sub-district, 1 at Loxley, 1 at Dungworth, and 1 at Oughtibridge.

The incidence of the disease was greatest at Potter Hill, which is part of the mining village of Highgreen. In this village, during the previous seven years, a total of 35 cases of Typhoid Fever had occurred, namely 2 in 1908, 2 in 1907, 12 in 1906, 3 in 1905, 10 in 1904, 6 in 1903, and none in 1902.

Since September, 1907, no case occurred in this locality till November 11th, 1908, when a miner residing at Thompson Hill was attacked. He was removed to hospital and recovered. On Nov. 24th, 1908, a case occurred at Near Potter Hill, which gave rise to a series of cases in this neighbourhood. This case was that of a miner (A) who refused to go to hospital. After a long illness he recovered, and on February 12th, 1909, the house was disinfected and the bedding, etc., removed to the steam disinfector. On February 26th, a second case occurred in the house, the housekeeper falling ill and being removed to hospital on March 3. About the same date, a girl who lived in a neighbouring cottage, and who had acted as charwoman during A's illness, was attacked, and a few days later her brother also sickened with the same complaint. Both these cases were removed to hospital. After this girl's illness, the clothing, etc., of A's household was washed by a Mrs. S., who lived in a cottage a few yards away. On March 19th Mrs. S's daughter, 6 years of age, on April 2nd her son, 12 years of age, and on April 14th her husband, were attacked. Mrs. S. herself apparently remained well until May 5th, when she was notified as suffering from Typhoid Fever. Meantime at A's house, a sister of the lad first attacked came home to assist in housekeeping, and she fell ill on March 26th. A step-brother of A's, who lived in a cottage a few yards away, sickened on March 29th, and his wife on April 2nd. In a cottage next door to A's, a boy, 8 years of age, one of a family of five, fell ill of the same complaint on April 16th. The outbreak in this group of cottages was now apparently at an end. On May 24th, however, a woman living in a row of cottages about 200 yards away, was notified, and on July 15th this woman's father, who lived in another cottage nearer the original group, was also notified.

In other parts of Highgreen 4 cases were notified during the year, one on April 11th, in Far Potter Hill; one on July 7th, at Thompson Hill; one on April 7th, at Highgreen; and the last case, on September 9th, at Mortomley. No causal connection could be traced between these cases and those at Potter Hill.

Altogether 19 cases occurred since November, 1908, at Potter Hill and Highgreen in 12 families. Of these, 14 occurred at Near Potter Hill in 7 families.

The source of infection in the first case at Potter Hill was uncertain. It may have been due to the consumption of mussels, which were obtained by A from a travelling hawker, but in none of the other cases could a history of the consumption of shell-fish be elicited. No cases were at the time occurring amongst miners working at the same colliery but living in other localities, and no "missed" cases could be traced. Whatever may have been the source of infection in the primary case, it seemed clear that the subsequent cases at Potter Hill were caused by personal infection, direct or indirect. The washing of soiled and imperfectly disinfected articles of linen, etc., easily explained the introduction of the infection into two households. The difficulties of nursing cases of Typhoid Fever in small cottages are so great, that it is not difficult to account for the transference of infection to other members of the family, especially to those engaged in nursing the case, as happened in A's household. Infection may have been transferred from the privy and ashpit, but only one case—that of the boy living next door—could be more easily explained on this hypothesis. There were practically no flies at the time, though fowls were kept and were at times allowed to stray into the ashpit. These fowls may have been the means of spreading the infection about the premises.

The question arose as to whether any persons in this locality were acting as "carriers." It has recently been discovered that persons who have apparently recovered from an attack of Typhoid Fever may, nevertheless, harbour the germs of the disease for long periods, in some cases, for many years. It is also known that many cases of slight illness, especially in children, are really cases of Typhoid Fever, though they are not recognised as such. In my annual report for 1903, I mentioned a case of this sort, where a child, suffering only from a slight attack of Diarrhœa and not receiving any medical treatment, carried the infection to two or three houses. In the outbreak at Potter Hill, I could not ascertain the existence of any unrecognised cases. Such cases are, however, very difficult to trace. It appeared in this outbreak that if a carrier existed, he would most likely be found in the A family. At the suggestion of Dr. Thomson, Medical Inspector of the Local Government Board, the necessary samples for the detection of any such carrier were obtained, after the cessation of the outbreak, from A once, and from the other members of the family twice, and forwarded to the Lister Institute for bacteriological examination. The results, were however, negative in each case.

All other sources of infection were inquired into. As regards the milk supply, all the houses at Near Potter Hill, with one exception, were supplied with milk from the same farm. But this farm also supplied milk to many other customers at Thompson Hill and Highgreen, amongst none of whom were there any illness of a suspicious nature. There was no illness of any description at this farm until Mrs. S's husband fell ill. He was a horseman at the farm, but had nothing to do with the cows or the milk.

The houses are all provided with trapped drains, which join the Chapeltown sewerage system. The houses are situated at the head of the sewer, but there was no nuisance from effluvia emanating from the surface ventilating grids.

The privy-ashpit system prevails in this district. Most of the ashpits are properly covered. One exception was that serving the houses where the first case occurred. A water closet has since been provided for one of the cottages. A house-to-house inspection was made by the Sanitary Inspector and myself of all houses in this locality, and several notices have been served for remedying defects found.

The water supply is derived from the Sheffield Corporation, who supply water in bulk to the Chapeltown Water Committee. All the houses have water laid on. There were no cases of Typhoid Fever at Chapeltown or elsewhere in the district supplied with water from this source. The possibility of any local leakage and insuction of sewage was carefully inquired into with the water manager, but nothing was ascertained to incriminate the water supply in any way.

At Cinder Hill, 6 cases occurred in one family. The spread of infection in the household was due to personal transference from the primary case, a boy, 6 years of age, whose illness was not recognised until his mother was also attacked.

**Erysipelas.**—21 cases of Erysipelas were notified, one of which died.

There were no cases of **Puerperal Fever** or **Smallpox.**

**Bacteriological Examinations** were made in the County Laboratory of specimens sent from this district in 90 instances. These comprised 70 throat or nose swabs from patients suffering from Diphtheria or from persons in contact with them, 12 specimens of blood, one of faeces and one of urine from patients suffering from Typhoid Fever, and 6 specimens of sputum from Tuberculous cases. In addition, 26 specimens of urine and faeces were examined at the Lister Institute for the presence of Typhoid bacilli.

## 2.—Non-Notifiable Diseases.

**Diarrhœa.**—Deaths in previous years.

| Year | 1899 | 1900 | 1901 | 1902 | 1903 | 1904 | 1905 | 1906 | 1907 | 1908 | 1909 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Deaths | 23 | 43 | 38 | 6 | 12 | 14 | 15 | 25 | 12 | 13 | 5 |

The deaths from Diarrhœa and Epidemic Enteritis numbered 5, the death rate per 1,000 of the population being only 0.16, as compared with an average of 0.59 for the previous ten years.

Two deaths occurred at Tankersley, 1 at Chapeltown, 1 at High-green, and 1 at Whitley.

**Measles.**—Deaths in previous years.

| Years | 1899 | 1900 | 1901 | 1902 | 1903 | 1904 | 1905 | 1906 | 1907 | 1908 | 1909 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Deaths | 3 | 14 | 15 | 10 | 10 | 1 | 3 | 1 | 23 | 3 | 19 |

Nineteen deaths occurred from Measles, the death rate being 0.61 per 1,000, as compared with 0.25 for the previous ten years.

Measles was very prevalent at Ecclesfield and Wadsley Bridge, and to a less extent at Worrall and Stannington in the early part of the year, and at Highgreen in November and December. Eight deaths occurred at Ecclesfield, 4 at Wadsley Bridge, 1 at Grenoside, 2 at Worrall, and 4 at Highgreen. Of these deaths, 17 occurred amongst children under 3 years of age, and the remaining two deaths amongst children, aged 5-6 years. The increased mortality during the year is attributable in some measure to the outbreaks occurring during the coldest months when respiratory complications are apt to be more severe.

Closure of schools as a means of checking the spread of Measles, was resorted to in five instances, viz.:—Ecclesfield Infant School, Wadsley Bridge Provided (Infant Department), Parson Cross (Infant Department), Highgreen Provided (Infant Department), and Stannington Provided. The period of closure was three weeks, except at Parson Cross, where the Infant Department was closed for four weeks.

Little progress has been made in our methods of controlling the spread of Measles in recent years. The regulation allowing children attending the upper classes and coming from infected homes to attend school provided they have previously suffered from Measles, cannot be said to have had any beneficial effect other than keeping up the average attendance. It is doubtful whether in some instances this regulation has not actually done harm. While in all other infectious diseases our endeavours are directed to searching out and controlling the unrecognised and the atypical cases, in Measles we are actually encouraging such cases to mix with healthy persons. The immunity conferred by one attack of Measles is probably exaggerated, and there is no reason to suppose that mild and atypical attacks are less common in Measles than in other infectious diseases. In any case, this regulation should not be rigidly adhered to, especially amongst the first cases occurring in any particular locality. It would be a great advantage if cases of Measles were notified to the Medical Officer of Health, whether the child is attending school or not. The inclusion of Measles in the list of diseases scheduled under the Notification Act has been a costly experiment in places where it has been tried, but the compulsory notification of Measles by the parents would be a cheap and effective way of bringing these cases to the notice of the Medical Officer of Health. If by this means the first cases occurring in a locality were promptly discovered, the control of Measles would be more effective than it is at present.

**Whooping Cough.**—Deaths in previous years.

| Year | 1899 | 1900 | 1901 | 1902 | 1903 | 1904 | 1905 | 1906 | 1907 | 1908 | 1909 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Deaths | 4 | 18 | 12 | 9 | 5 | 9 | 2 | 7 | 8 | 11 | 5 |

Whooping Cough caused 5 deaths, 3 occurring at Chapeltown, 1 at Grenoside, and 1 at Rivelin.

**Schools and Infectious Diseases.**—During the year 167 notices were received from the school attendance officers and from the head teachers regarding children absent from school on account of supposed infectious sickness. These notices referred to the following diseases:—Measles, 93; Chicken Pox, 22; Scarlet Fever, 11; Diphtheria, 7; Mumps, 4; Sore Throat, 26; Doubtful Rashes, 4. Chicken Pox was prevalent at Ecclesfield, Wadsley Bridge, and Hollow Meadows, and Mumps at Stannington.

## III.—GENERAL SANITATION.

### The Isolation Hospital.

During the year 95 cases were admitted to the Isolation Hospital, viz.:—Scarlet Fever, 61; Diphtheria, 11; Typhoid Fever, 23. There remained over from last year, 4 cases of Scarlet Fever, and 2 of Typhoid Fever, the total number of cases treated being 101.

Of the cases of Scarlet Fever, 59 recovered, and 6 remained in hospital at the end of the year, there being no deaths.

All the cases of Diphtheria recovered. 13 cases were treated in their own homes, of which 3 died, the fatality rate being 23 per cent.

Of the cases of Typhoid Fever, 21 recovered, 3 died, and 1 remained in hospital at the end of the year, the fatality rate being 13 per cent. 8 cases were treated in their own homes, of which 3 died, the fatality rate being 37.5 per cent.

With regard to the age incidence of the Scarlet Fever admissions, 1 was under 1 year, 25 were between 1 and 5 years, 34 between 5 and 15 years, and 1 between 15 and 25 years.

The more important complications occuring amongst the cases of Scarlet Fever were:—Otitis Media, 4; Suppurative Adenitis, 1; Arthritis, 1; Bronchopneumonia, 1; Rhinitis, 9; Relapse 3; Measles, 2; Whooping Cough, 1; Chicken Pox, 2. There were no "return" cases, i.e., cases occurring in the same house within 28 days of the discharge of the patient from hospital.

The complications occurring amongst the Typhoid Fever cases were:—Pneumonia, 3; Peritonitis, 1; Intestinal Hæmorrhage, 3; Subcutaneous Hæmorrhage, 1: Periostitis, 1; Arthritis, 1; Miscarriage, 1; Relapse, 3.

The question of separate accommodation for cases of Small Pox was under consideration during the year. Much time was spent in the inspection of suggested sites, the difficulty being to obtain a site sufficiently far removed from populous localities to comply with the requirements of the Local Government Board, and yet convenient of access and provided with a good supply of water. Eventually a suitable site was selected, and negotiations are in progress with the owner for a long lease. When these are completed, the preparation of plans will be immediately proceeded with.

**Water Supply.**—The rainfall for the year amounted to 29·50 inches at Potter Hill, as compared with an average of 26.39 inches for the previous eight years. Rain fell on 186 days, February and November being the driest, and July and December the wettest months. It is worthy of notice that between the middle of August and the end of September there were 35 wet days. This continuous rain at the hottest season of the year, along with a low ground temperature, had a most favourable influence in reducing the infantile mortality.

During the year extension of water mains was carried out at Bartram Road, Oughtibridge. Several properties at Stannington and Oughtibridge had water laid on to the houses.

The question of improving the water supply to the upper part of Grenoside was again under consideration. An experimental well was sunk in the most likely spot above the village and boring continued for a considerable depth, but the water obtained was quite insufficient for the purpose. Recourse was then had to a supply known to exist on another site, but of indeterminate amount, and negotiations have been concluded with the owner for renting, for a period of three years, the land required for the purpose of testing the amount of water available. If the result during dry seasons is satisfactory, the water will be conveyed in iron pipes and supplied to the upper part of the village by means of street standpipes.

Mention has been made in previous reports of the inadequacy of the supply to Clay Wheel Cottages and Lapwater. To the former a supply has eventually been obtained from the Langsett main of the Sheffield Corporation. The supply to this group of cottages having been disposed of, a modified scheme was considered for improving the supply to Lapwater by utilising the existing spring and conveying the water in pipes to a point within easy reach of the occupiers of the cottages. The Council were willing to carry out this scheme, provided the owner, through whose property the pipes would pass, granted an easement free of charge. The owner, however, imposed conditions which were considered unnecessary and unreasonable, especially in view of the benefit derived, and the matter has been deferred for the present.

**Plumbo-Solvency.**—No cases of lead poisoning or of illness traceable to the presence of lead in potable waters occurred during the year.

In last year's report, I described the qualities of the various public supplies in regard to their lead dissolving power and the means taken to obviate any danger from this source. As it has been stated in some authoritative quarters that it is generally impracticable to forbid the use of lead pipes for conveying soft water, I may say that a regulation requiring the employment of cast-iron or copper pipes has been in force in the Bradfield district for some years, and has given rise to no difficulties of any consequence. The difficulties, at all events, in the case of cottages, are more imaginary than real.

During the year I have examined samples from the various public supplies where lead pipes are in use, but no lead was found. One sample taken from a public supply known to be treated with a view to its lead dissolving properties being neutralised, was examined by the County Analyst and reported to contain $\frac{1}{70}$ grain of lead per gallon, the water having stood in the pipes all night. None was found in a sample taken after the tap was allowed to run for a minute or two. The pipe to the house from which the sample was taken had not been very long in use. I have also examined several samples taken from private supplies, where lead pipes were in use, but no positive results were obtained.

**Sewerage and Sewage Disposal.** — During the year sewer extensions were carried out at Cross Hill, Ecclesfield.

The arrangements at present in existence for disposing of the sewage of Charlton Brook, which were the subject of report and discussion in 1906, again came up for consideration. The erection of a few new cottages in this hamlet has increased the difficulties of dealing with the sewage, and the Council are at present considering the advisability of adopting some other sewage disposal scheme.

The experiment tried at Ecclesfield, during last year, of closing all the surface ventilating grids in the streets and substituting, where necessary, special ventilating shafts, has been apparently quite successful in obviating the nuisance caused by offensive emanations from the sewers. No difficulties have arisen from an engineering point of view, and there is no evidence of any conditions dangerous to the public health having been thereby created. The same methods have been adopted during the year for abating similar nuisances complained of at Hesley Lane, Warren, and Clay Wheel Lane. One special ventilating shaft has been erected at Hesley Bar.

**Excrement Disposal and Scavenging.**—Complaints were not infrequent during the year regarding neglect on the part of some of the contractors in carrying out the work of scavenging the ashpits. The system adopted at Ecclesfield of not letting the work by contract but employing direct labour for emptying the ashpits and hiring a horse and cart for removing the refuse has been much more satisfactory. This method of scavenging was, during the year, adopted at Wadsley Bridge, and will probably be extended to other urban localities where suitable "tips" can be obtained for disposing of the refuse.

**Nuisances.**—During the year 40 nuisances were dealt with, of which 21 were abated. The nuisances comprised:—defective and insanitary privies, 14; choked or defective drains, 13; housing defects, 3; defective yard paving, 2; overcrowding, 5; pigs improperly kept, 2; nuisance from sewage disposal, 1.

**Offensive Trades.**—One slaughter-house for pigs was licensed during the year. Those on the register were found to be kept in a fairly satisfactory condition. There were no seizures of diseased meat during the year.

**Dairies and Cowsheds.**—During the year 53 notices were issued for the alteration of cowsheds. 23 cowsheds have been reconstructed or so altered as to comply with the regulations. Progress continues to be made in regard to the structural improvement of the cowsheds, of which there are 271 on the register. The cowsheds are also being kept in a more cleanly condition. There is still room for improvement, however, in regard to the cleanliness of the cows. A point of great practical importance in this connection is the length of the stall in proportion to the size of the cow. If the stall is too long, no amount of bedding and grooming will keep the cow clean. For big animals, a stall ought not to measure more than 6 ft. between the feeding trough and the heel-stone, and for smaller animals such a stall is too long. A useful invention would be some moveable arrangement by which the stall could be easily shortened or lengthened according to the size of the cow. Where the hind part of the stall is rigid, it is a mistake to have all the stalls of the same length. Stalls of different sizes might be arranged in a new cowshed by gradually increasing the width of the gutter from one end of the shed to the other.

In regard to the cleanliness of the sheds, a regulation the farmer does not take kindly to is the lime-washing of the roof or top. The lime-washing of the roof has the advantages of more thoroughly removing cobwebs and dust, of reflecting light, and of giving the shed the appearance of greater cleanliness. It would conduce to greater facility in lime-washing, if spraying machines were more generally used. These might, with advantage, be provided by the Council and lent out on hire.

The work, commenced in 1908, of inspecting the cows for the detection of tuberculous disease of the udder, was continued during the year. Mr. Abson, veterinary surgeon, was called in to examine the herds on 11 farms, and amongst these 4 cows were found to be suffering from tuberculosis of the udder. These were thrown out of milk and slaughtered as soon as possible. In addition, 7 samples of milk were taken from cows with suspected udder disease and examined at the County Laboratory, but they all gave negative results. Information was also received from the Medical Officer of Sheffield of one cow which had been found to be suffering from tuberculosis of the udder and which was housed in a farm in this district, the farmer meantime having ceased supplying milk within the city. On visiting the farm, we found the cow had been sent to the knacker's, and the farmer had ceased selling milk.

**Diseases of Animals Act, 1894.**—One outbreak of anthrax occurred during the year on a dairy farm, one heifer being affected. There was no spread of the disease to the other animals or to the persons employed on the farm.

**New Buildings.**—Plans were passed during the year for one new street and 99 new buildings, most of which were cottages for the working classes. Plans were also passed for 36 sundry alterations and extensions. Eight breaches of the building bye-laws were dealt with.

**Housing of the Working Classes.**—Representation was made by me under See. 30, Housing of the Working Classes Act, 1890, regarding two cottages at Wadsley Bridge and one cottage at Thompson Hill, Highgreen. The former were old, damp cottages, adjoining one another, the immediate surroundings of which were in a very insanitary condition, owing to bad drainage arrangements and leakage from the privy and ashpit. One of the cottages was without any proper water supply and had no sink. The structural defects were such that it was no easy matter to put them into habitable repair, and they were closed and demolished by the owners. The cottage at Thompson Hill was also an old and very damp single-storey building, which was situated partly underground and was in a dilapidated condition. This house is now closed.

Two houses at Potter Hill were voluntarily closed by the owner, when the conditions were brought to his notice.

The four cottages at Thompson Hill, which were being dealt with at the end of the previous year, have also been closed.

The cottages at Chapeltown and Grenoside, previously condemned, remain closed.

At the close of the year, the Housing and Town Planning Act, 1909, came in force. This Act considerably extends the powers of the Council in dealing with unhealthy dwelling-houses and with unhealthy areas. It gives power to the Council to erect cottages for the working classes and to regulate the laying out of land for building purposes. In regard to dwelling-houses, the more important clauses are those dealing with closing orders and with repairs necessary to keep dwellings fit for habitation. One section is designed to secure that all houses, where the annual rent does not exceed £16, shall be kept by the landlord in all respects reasonably fit for human habitation and provides machinery for remedying any default on the part of the landlord in this respect. Power is given to the Council to themselves carry out such works as are necessary, if the landlord has not done so after notice, and recover the expenses. Closing orders can now be made by the Council, appeal against their order being allowed only to the Local Government Board. Important provisions are also contained in the Act dealing with underground rooms habitually used as sleeping places and with the erection of back-to-back houses, which are practically prohibited for the future. Houses of this type have not, however, been erected in this district since the Building Bye-laws have been in force. The part of the Act relating to Town Planning will require careful perusal.

**Factories and Workshops.**—Very little alteration has taken place in the number of workshops in the district during the year. No notices of occupation of new workshops have been received from the Factory Inspector. One small bakehouse has been disused. There are now on the Register, 117 workshops, viz.:—File cutters and forgers, 46; cutlers, 12; razor scale pressers, 12; bakers, 7; dressmakers, tailors, etc., 8; joiners, blacksmiths, etc., 25; other workshops, 7.

All the workshops, except a few of the file cutting shops, which are under special regulations, were inspected and were found in a cleanly condition. Of the workplaces inspected, one was somewhat neglected in the matter of white-washing.

Two notices were received from the Factory Inspector regarding insufficient closet accommodation in factories, which are receiving attention, although Sec. 22, Public Health Amendment Act, 1890, dealing with this matter is not in force in the district.

Only one list of outworkers was received from the Sheffield Sanitary Authority containing the names of 52 outworkers in the file cutting trade, whose place of residence is in this district.

The statistical tables required by the Local Government Board are appended.

# TABLE I.

## *Vital Statistics of Whole District during 1909 and previous years.*

## WORTLEY RURAL DISTRICT.

| YEAR. | Population estimated to Middle of each Year | BIRTHS. | | TOTAL DEATHS REGISTERED IN THE DISTRICT. | | | | TOTAL DEATHS IN PUBLIC INSTITUTIONS IN THE DISTRICT. | Deaths of Non-residents registered in Public Institutions in the District | Deaths of Residents registered in Public Institutions beyond the District | NETT DEATHS AT ALL AGES BELONGING TO THE DISTRICT. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Under 1 year of age. | | At all ages. | | | | | | |
| | | Number | Rate* | Number | Rate per 1000 Births registered | Number | Rate† | | | | Number | Rate* |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 1899 | 44,494 | 1413 | 32·9 | 194 | 137 | 898 | 20·1 | | 193 | | 705 | 16·4 |
| 1900 | 45,532 | 1429 | 32·5 | 244 | 170 | 990 | 21·7 | 256 | 205 | 13 | 798 | 18·2 |
| 1901 | 43,786 | 1463 | 34·6 | 192 | 131 | 836 | 19·1 | 216 | 192 | 17 | 661 | 15·7 |
| 1902 | 30,057 | 937 | 32·9 | 115 | 122 | 582 | 19·3 | 217 | 195 | 6 | 393 | 13·8 |
| 1903 | 30,375 | 962 | 33·4 | 123 | 127 | 589 | 19·3 | 214 | 198 | 10 | 401 | 13·9 |
| 1904 | 30,698 | 949 | 32·6 | 115 | 122 | 600 | 19.5 | 205 | 171 | 11 | 440 | 15·1 |
| 1905 | 31,025 | 893 | 30·3 | 110 | 123 | 561 | 18·8 | 162 | 146 | 17 | 432 | 14·7 |
| 1906 | 31,357 | 943 | 31·7 | 106 | 112 | 568 | 18·1 | 196 | 170 | 15 | 413 | 13·9 |
| 1907 | 31,693 | 866 | 28·7 | 117 | 135 | 643 | 20·3 | 194 | 162 | 16 | 497 | 16·5 |
| 1908 | 32,045 | 966 | 31·7 | 118 | 122 | 607 | 18·9 | 194 | 170 | 16 | 453 | 14·9 |
| Averages for years 1899—1908 | 35,106 | 1082 | 32·3 | 143 | 132 | 687 | 19·5 | 185 | 180 | 13 | 519 | 15·5 |
| 1909 | 32,378 | 864 | 28.1 | 83 | 96 | 577 | 17·8 | 210 | 189 | 15 | 403 | 13.1 |

† Rate in column 8 calculated per 1000 of estimated population.

* Rates in columns 4, and 13, calculated per 1,000 of estimated population, exclusive of the "non-resident" population of South Yorkshire Asylum.

Area of District in acres (exclusive of area covered by water)—52,230. Total Population at all ages at Census of 1901—29,665.

Number of Inhabited Houses at Census of 1901—5,513. Average number of persons per house at Census of 1901—5·0.

NOTE.—The deaths included in column 7 of this table are the whole of those registered during the year as having actually occurred within the district. The deaths included in column 12 are the number in column 7, corrected by the subtraction of the number in column 10 and the addition of the number in column 11.

I. Institutions within the District receiving sick and infirm persons from outside the District—South Yorkshire Asylum; Workhouse, Grenoside (part).

II. Institutions outside the District receiving sick and infirm persons from the District—Royal Infirmary, Sheffield; Royal Hospital, Sheffield; Jessop Hospital, Sheffield; Children's Hospital, Sheffield.

III. Other Institutions, the deaths in which have been distributed among the several localities in the District—Workhouse, Grenoside; Isolation Hospital, Grenoside.

IV. Is the Union Workhouse within the District?—Yes.

## TABLE II.

## *Vital Statistics of separate Localities in 1909 and previous years.*

## WORTLEY RURAL DISTRICT.

| Names of Localities. | WHOLE DISTRICT | | | | ECCLESFIELD | | | | BRADFIELD | | | | TANKERSLEY AND WORTLEY | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year. | Population estimated to middle of each Year. | Births registered. | Deaths at all ages. | Deaths under 1 year. | Population estimated to middle of each Year. | Births registered. | Deaths at all Ages. | Deaths under 1 Year. | Population estimated to middle of each Year. | Births registered. | Deaths at all Ages. | Deaths under 1 year. | Population estimated to middle of each year. | Births registered. | Deaths at all Ages. | Deaths under 1 year. |
| 1899 | 44,494 | 1413 | 705 | 194 | 32,536 | 1044 | 521 | 145 | 8,549 | 256 | 132 | 32 | 3409 | 113 | 52 | 17 |
| 1900 | 45,532 | 1429 | 798 | 244 | 33,451 | 1076 | 614 | 201 | 8,664 | 257 | 140 | 30 | 3417 | 96 | 44 | 13 |
| 1901 | 43,786 | 1463 | 661 | 192 | 31,778 | 1108 | 497 | 162 | 8,581 | 254 | 130 | 31 | 3427 | 105 | 43 | 10 |
| 1902 | 30,057 | 937 | 393 | 115 | 18,543 | 600 | 230 | 69 | 8,078 | 229 | 121 | 33 | 3436 | 108 | 42 | 13 |
| 1903 | 30,375 | 962 | 401 | 123 | 18,720 | 636 | 254 | 85 | 8,210 | 218 | 105 | 30 | 3445 | 108 | 42 | 8 |
| 1904 | 30,698 | 949 | 440 | 115 | 18,898 | 634 | 292 | 87 | 8,315 | 214 | 99 | 18 | 3455 | 101 | 49 | 10 |
| 1905 | 31,025 | 893 | 432 | 110 | 19,078 | 601 | 288 | 68 | 8,482 | 208 | 97 | 34 | 3465 | 84 | 47 | 8 |
| 1906 | 31,357 | 943 | 413 | 106 | 19,260 | 633 | 271 | 70 | 8,621 | 215 | 98 | 26 | 3476 | 95 | 44 | 10 |
| 1907 | 31,693 | 866 | 497 | 117 | 19,444 | 600 | 317 | 79 | 8,762 | 190 | 127 | 30 | 3487 | 76 | 53 | 8 |
| 1908 | 32,045 | 966 | 453 | 118 | 19,640 | 647 | 281 | 71 | 8,906 | 214 | 121 | 31 | 3499 | 105 | 51 | 16 |
| Averages of Years 1899 to 1908. | 35,106 | 1082 | 519 | 143 | 23,135 | 758 | 356 | 104 | 8,520 | 225 | 117 | 29 | 3451 | 99 | 46 | 11 |
| 1909 | 32,378 | 864 | 403 | 83 | 19,816 | 615 | 277 | 61 | 9,052 | 167 | 87 | 15 | 3510 | 82 | 39 | 7 |

## TABLE III.

# WORTLEY RURAL DISTRICT.

## Cases of **INFECTIOUS DISEASE** notified during the Year 1909.

| Notifiable Disease. | Cases Notified in Whole District. | | | | | | | Total Cases Notified in Each Locality. | | | No. of Cases Removed to Hospital from each Locality. | | | Total cases removed to hospital. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | At all ages | At Ages—Years. | | | | | | | | | | | | |
| | | Under 1. | 1 to 5 | 5 to 15 | 15 to 25 | 25 to 65 | 65 and upds | Ecclesfield | Bradfield | Tankersley and Wortley | Ecclesfield (H.W.) | Bradfield | Tankersley and Wortley | |
| Small-pox ... ... | | | | | | | | | | | | | | |
| Cholera ... ... | | | | | | | | | | | | | | |
| Diphtheria including Membranous Croup | 24 | | 4 | 16 | 3 | 1 | | 19 | 4 | 1 | 8 | 2 | 1 | 11 |
| Erysipelas ... ... | 21 | | 1 | | 1 | 18 | 1 | 14 | 5 | 2 | | | | |
| Scarlet Fever ... | 79 | 4 | 26 | 47 | 1 | 1 | | 55 | 13 | 11 | 45 | 7 | 9 | 61 |
| Typhus Fever ... | | | | | | | | | | | | | | |
| Enteric Fever ... | 31 | | 1 | 9 | 6 | 13 | 2 | 28 | 3 | | 21 | 2 | | 23 |
| Relapsing Fever ... | | | | | | | | | | | | | | |
| Continued Fever ... | | | | | | | | | | | | | | |
| Puerperal Fever ... | | | | | | | | | | | | | | |
| Plague ... ... | | | | | | | | | | | | | | |
| Pulmonary Tuberculosis | | | | | | | | | | | | | | |
| Totals ... ... | 155 | 4 | 32 | 72 | 11 | 33 | 3 | 116 | 25 | 14 | 74 | 11 | 10 | 95 |

Isolation Hospital—Grenoside, Ecclesfield. Total available beds—18. Number of diseases that can be concurrently treated—Two.

## TABLE IV.

# WORTLEY RURAL DISTRICT.

Causes of, and Ages at, Death during the Year 1909.

| Causes of Death. | Deaths in or belonging to whole District at subjoined Ages | | | | | | | Deaths in Localities (at all Ages). | | | Total Deaths in Public Institutions in the District. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | All ages | Under 1 year | 1 and under 5. | 5 and under 15. | 15 and under 25. | 25 and under 65. | 65 and up-wards. | Ecclesfield | Bradfield | Tankersley and Wortley | |
| Small-pox .. ... ... | | | | | | | | | | | |
| Measles ... .. ... | 19 | 4 | 13 | 2 | ... | ... | .. | 17 | 2 | ... | ... |
| Scarlet fever ... ... | ... | ... | ... | ... | .. | .. | ... | ... | ... | ... | ... |
| Whooping-cough ... ... | 5 | 2 | 3 | ... | ... | ... | ... | 4 | 1 | ... | ... |
| Diphtheria and membranous croup ... ... | 3 | ... | 1 | 2 | ... | ... | ... | 2 | 1 | ... | ... |
| Croup ... ... .. | 3 | ... | 1 | 2 | ... | .. | ... | 3 | ... | .. | .. |
| Fever { Typhus ... ... | | | | | | | | | | | |
| Fever { Enteric ... ... | 6 | ... | ... | 1 | ... | 5 | .. | 5 | 1 | ... | 3 |
| Fever { Other continued... | | | | | | | | | | | |
| Epidemic Influenza .. | 2 | ... | .. | ... | ... | 2 | .. | 1 | 1 | ... | ... |
| Cholera ... ... ... | | | | | | | | | | | |
| Plague ... ... ... | | | | | | | | | | | |
| Diarrhœa ... ... ... | 5 | 4 | 1 | ... | ... | ... | ... | 3 | ... | 2 | ... |
| Enteritis ... ... ... | 6 | 5 | ... | ... | ... | 1 | ... | 3 | 3 | ... | ... |
| Puerperal Fever ... .. | .. | ... | ... | .. | ... | ... | ... | ... | ... | ... | ... |
| Erysipelas ... ... ... | 1 | 1 | ... | ... | .. | ... | ... | 1 | ... | ... | ... |
| Other septic diseases ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Phthisis ... .. ... | 20 | ... | 1 | 2 | 3 | 14 | ... | 14 | 5 | 1 | 29 |
| Other tubercular diseases | 12 | 3 | 3 | 3 | 1 | 2 | ... | 9 | 1 | 2 | 5 |
| Cancer, malignant disease | 32 | ... | ... | ... | ... | 12 | 20 | 24 | 5 | 3 | 5 |
| Bronchitis ... ... ... | 19 | 4 | 1 | .. | ... | 5 | 9 | 14 | 3 | 2 | 5 |
| Pneumonia ... ... | 53 | 9 | 11 | 2 | 1 | 16 | 14 | 40 | 13 | ... | 11 |
| Pleurisy ... .. ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Other diseases of Respiratory organs .. ... | 6 | ... | 1 | ... | ... | 4 | 1 | 5 | 1 | ... | 7 |
| Alcoholism<br>Cirrhosis of liver } ... | 2 | ... | .. | ... | ... | 2 | ... | .. | 2 | .. | 1 |
| Venereal diseases ... | 2 | 1 | ... | ... | . | ... | 1 | 2 | ... | ... | ... |
| Premature birth ... ... | 12 | 12 | ... | ... | ... | ... | ... | 9 | 2 | 1 | .. |
| Diseases and accidents of parturition ... ... | 4 | ... | ... | ... | 2 | 2 | ... | 3 | ... | 1 | ... |
| Heart diseases ... ... | 33 | ... | .. | 2 | .. | 17 | 14 | 21 | 7 | 5 | 20 |
| Accidents ... ... ... | 14 | 4 | ... | 1 | 3 | 4 | 2 | 6 | 3 | 5 | 5 |
| Suicides ... ... .. | 3 | ... | ... | ... | 1 | 2 | ... | 3 | ... | ... | ... |
| Old Age ... ... ... | 21 | ... | ... | ... | ... | ... | 21 | 11 | 6 | 4 | 2 |
| Apoplexy ... .. ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Diseases of Nervous System | 42 | 9 | 2 | 2 | 1 | 15 | 13 | 27 | 12 | 3 | 73 |
| Developmental Diseases | 26 | 22 | 3 | 1 | ... | ... | ... | 18 | 6 | 2 | ... |
| Nephritis ... ... ... | 12 | ... | ... | ... | 1 | 7 | 4 | 7 | 4 | 1 | 23 |
| Marasmus ... .. ... | ... | ... | ... | ... | ... | .. | ... | ... | ... | .. | .. |
| All other causes ... .. | 40 | 3 | .. | 2 | 6 | 21 | 8 | 25 | 8 | 7 | 21 |
| All causes .. ... | 403 | 83 | 41 | 22 | 19 | 131 | 107 | 277 | 87 | 39 | 210 |

# TABLE V.

# WORTLEY RURAL DISTRICT.

## Infantile Mortality during the Year 1909.

Deaths from stated Causes in Weeks and Months under One Year of Age.

| CAUSE OF DEATH | | Under 1 week | 1-2 weeks | 2-3 weeks | 3-4 weeks | Total under 1 month | 1-2 months | 2-3 months | 3-4 months | 4-5 months | 5-6 months | 6-7 months | 7-8 months | 8-9 months | 9-10 months | 10-11 months | 11-12 months | Total Deaths under One Year |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALL CAUSES | Certified ... ... | 15 | 2 | 4 | 1 | 22 | 16 | 3 | 3 | 3 | 5 | 1 | 6 | 5 | 3 | 5 | 5 | 77 |
| | Uncertified ... ... | 4 | ... | ... | ... | ... | ... | ... | ... | ... | 2 | ... | ... | ... | ... | ... | ... | 6 |
| Common Infectious Diseases | Small-pox ... ... | | | | | | | | | | | | | | | | | |
| | Chicken-pox ... ... | | | | | | | | | | | | | | | | | |
| | Measles ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | 1 | 1 | 1 | 4 |
| | Scarlet Fever ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Diphtheria: Memb. Croup | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Whooping Cough ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | 1 | ... | ... | ... | 2 |
| Diarrhœal Diseases | Diarrhœa, all forms ... | ... | ... | ... | ... | ... | ... | ... | 1 | 1 | 1 | ... | ... | 1 | ... | ... | ... | 4 |
| | Enteritis, Muco-enteritis, Gastro-enteritis | ... | ... | ... | ... | ... | 3 | 2 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 5 |
| | Gastritis, Gastro-intestinal Catarrh | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Wasting Diseases | Premature Birth ... | 8 | 1 | 1 | ... | 10 | 2 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 12 |
| | Congenital Defects ... | 4 | ... | 1 | ... | 5 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 5 |
| | Injury at Birth ... | 1 | ... | ... | ... | 1 | .. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 |
| | Want of Breast-milk ... | ... | ... | ... | ... | ... | 1 | ... | .. | ... | ... | ... | 1 | ... | ... | ... | .. | 2 |
| | Atrophy, Debility, Marasmus | 1 | 1 | 2 | 1 | 5 | 1 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 7 |
| Tuberculous Diseases | Tuberculous Meningitis | | | | | | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | 1 |
| | Tuberculous Peritonitis: Tabes Mesenterica | | | | | | ... | ... | ... | 1 | 1 | ... | ... | ... | ... | ... | ... | 2 |
| | Other Tuberculous Diseases | | | | | | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Erysipelas ... ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | 1 |
| | Syphilis ... ... | | | | | | 1 | ... | ... | ... | ... | .. | ... | ... | ... | ... | ... | 1 |
| | Rickets ... ... | | | | | | | | | | | | | | | | | |
| | Meningitis ... ... (*not Tuberculous*) | ... | ... | ... | ... | ... | 1 | ... | ... | .. | ... | ... | ... | 1 | ... | ... | ... | 2 |
| | Convulsions ... ... | 3 | ... | ... | ... | 3 | 3 | ... | ... | 1 | 2 | ... | 2 | ... | .. | 1 | 2 | 14 |
| | Bronchitis ... ... | ... | ... | ... | ... | ... | 2 | ... | ... | ... | ... | ... | 1 | ... | ... | 1 | ... | 4 |
| | Laryngitis ... ... | | | | | | | | | | | | | | | | | |
| | Pneumonia ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 9 |
| | Suffocation, overlying ... | 1 | ... | ... | ... | 1 | 1 | ... | 1 | ... | ... | ... | .. | ... | ... | ... | ... | 3 |
| | Other Causes ... ... | 1 | ... | ... | ... | 1 | 1 | ... | ... | ... | ... | ... | ... | ... | 1 | ... | 1 | 4 |
| | | 19 | 2 | 4 | 1 | 26 | 16 | 3 | 3 | 3 | 7 | 1 | 6 | 5 | 3 | 5 | 5 | 83 |

Population estimated to middle of 1909, 32,378.

Births in the year: legitimate, 833; illegitimate, 31. Deaths from all Causes at all Ages, 403.

Deaths in the year of legitimate infants, 80; illegitimate infants, 3.